# **TH-57 DAILY INSPECTION**

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# **TH-57 DAILY INSPECTION**

#### G-1. DAILY INSPECTION

This inspection is conducted to inspect for defects to a greater depth than the turnaround or preflight inspections. The daily inspection is valid for a period of 72 hours, provided that no flight occurs during this period and no maintenance other than servicing has been performed.

Aircraft may be flown for 24 hours without another daily. This 24-hour period begins with the first launch following accomplishment of the daily inspection. In no case is it valid for more than 72 hours. Turnaround requirements (Appendix H) are not included in the daily inspection and must be accomplished separately. Accomplishment of a turnaround does not affect the 72-hour validity of the daily inspection.

#### G-2. GENERAL

# **Material Required**

Nomenclature	Reference Number	
Cloth, Cleaning	(CCC-C-46)	
Jar, Fuel Sampling	(Mason)	

 Perform a zonal inspection for corrosion and obvious defects on each area listed below.



ALL ELECTRICAL POWER MUST BE OFF PRIOR TO TAKING FUEL SAMPLE.

# WARNING

JP-4, JP-5, AND JP-8 CAN CAUSE SEVERE BURNS, IRRITATIONS AND BLINDNESS. AVOID PROLONGED SKIN CONTACT WITH ANY AVIATION FUEL.

2. Take fuel sample IAW NAVAIR 01-1A-35

#### G-3. NOSE AREA

- 1. Inspect skin, structural supports for dents, cracks and popped rivets.
- 2. Check battery compartment door hinge and spring for security.
- 3. Check battery for broken wires and evidence of arcing.
- 4. Inspect battery electrical connectors (helix) for damage and corrosion.
- 5. Check battery vent tubes for damage and loose hardware.



TO **CONNECTING** PRIOR BATTERY, **ENSURE** SWITCHES EXCEPT FOR THE "FUEL VALVE" SWITCH ARE IN THE OFF POSITION. **ENSURE** ALL CIRCUIT BREAKERS ARE "IN" EXCEPT FOR THE ENGINE START. ENGINE IGNITION AND BOTH **FUEL BOOST PUMPS.** 

- 6. Connect forward battery
- 7. check external power door and hinge fastener for security and proper operation.
- 8. Inspect landing light and lens for cracks or warpage.
- 9. Inspect searchlight lens for cracks.

# G-4. FORWARD CABIN INTERIOR (RH)

- 1. Inspect cabin deck for dents, cracks, loose or missing rivets, or debris.
- 2. Check seatbelts and shoulder harness for the following:
  - a. Webbing for cuts.
  - b. Attaching hardware for looseness.
  - c. Proper latching.
  - d. Inertial reel for positive locking when straps are accelerated.
- 3. inspect instruments for glass slippage, readability and proper markings.
- 4. Check tail rotor pedal adjustment knob for freedom of movement.
- 5. Check tail rotor control pedals for freedom of movement.
- 6. Check cyclic stick for freedom of movement.
- 7. Turn battery switch ON.
- 8. Check fuel quantity indicator for proper operation.
- 9. Perform the following Fuel boost pump check:
  - a. Both boost pump circuit breakers IN.
  - b. Fuel valve switch in ON position / check switch guard pin security (TH-57C).

- c. Check fuel pressure (above 4 psi)
- d Pull AFT boost pump circuit breaker.
  Check for illumination of FUEL
  BOOST caution light segment.
- e. Pull FWD boost pump circuit breaker. Note continued caution light.
- f. Reset AFT boost pump circuit breaker, fuel pressure (above 4 psi). Note continued caution light.
- g. Reset FWD boost pump circuit breaker. Note caution light out.
- h. Press to test button on airframe fuel filter. Note fuel caution light illuminates.

# WARNING

# AT LEAST ONE FUEL BOOST PUMP MUST BE ON WHILE DRAINING AIRFRAME FUEL FILTER.

- i. drain airframe fuel filter.
- Check fuel valve switch in ON position.
- 10. Check interior lights for proper operation.
- 11. Check landing lights for proper operation.
- 12. Check search light for proper operation.
- 13. Turn battery switch OFF.
- 14. Ensure first aid kit is installed and the inspection tag is current.
- 15. Inspect magnetic compass (es) for security damage and current deviation card.
- 16. Check emergency cargo release handle for shearwire if cargo hook is installed.

## G-5. AFT CABIN INTERIOR (RH)

- 1. Inspect cabin for dents, cracks, or loose gear adrift.
- 2. Inspect belts and shoulder harness for the following:
  - a. Webbing for cuts, fraying and deterioration.
  - b. Attaching hardware for evidence of looseness.
  - c. Proper latching.
- 3. Inspect avionics shelf for the following:
  - a. ICS amplifiers for security (TH-57B).
  - b. Voltage regulator for security and the attached wires for tightness.
  - c. Shelf for FOD and the curtain/panel for Velcro attachment.

## G-6. FORWARD FUSELAGE (RH)

- 1. Inspect forward and aft door for the following:
  - a. Hinges for cracks or loose rivets.
  - b. Air scoop (when installed) for security.
  - c. Door latch for proper operation.
  - d. Emergency release handle for proper positioning and shear wire.
- 2. Inspect cross tubes for damage, cracks, excessive deflection and security and rubber bumpers for proper installation.
- 3. Inspect skid and skid shoes for cracks or wear.
- 4. Inspect landing light for damage and security.
- 5. Inspect cargo hook tubular mount for damage and security. Check for loose rivets, dents, etc.
- 6. Inspect for damage to the fuselage.

# G-7. TRANSMISSION ACCESS PANEL (RH)

- 1. Check panel door hinges for security.
- Inspect chip detector plug(s) for security and leakage. Ensure electrical connections are tight.
- 3. Inspect transmission case for cracks and leaks.
- 4. Inspect main driveshaft for nicks, dents, scratches, security and evidence of leakage.
- 5. Check spike and spikewell for damage or fluid accumulation.
- 6. Inspect isolation mount for damage and boot for deterioration or damage.
- 7. Check pylon mount links and mount brackets for security, cracks and worn bearings.
- 8. Check oil cooler blast tube for security, cracks or deterioration.
- 9. Check compartment deck for debris.
- 10. Check engine wash line for security.
- 11. Check door latch for proper operation.

## G-8. ENGINE COMPARTMENT (RH)

- 1. Inspect compartment door for security of hinges.
- 2. Inspect exhaust stacks and clamps for damage, security and lockwire.
- 3. Inspect combustion chamber, air transfer tube and diffuser scroll for cracks, dents or burned spots.
- 4. Check heater bleed air fitting for security and lockwire.
- 5. Inspect accessory gearbox and oil sump chip detectors for leakage and security of electrical connector.
- 6. Check main driveshaft for nicks, dents, scratches and security.
- Check linkage for security and loose hardware and lockwire.

- 8. Check starter generator for security, clamp for lockwire and wires for looseness.
- 9. Inspect ducting for cracks, security and clamp lockwire.
- 10. Check fuel control for leakage and loose lines.
- 11. Inspect hoses and lines for looseness, leakage, damage and chafing.
- 12. Check electrical wiring for deterioration, security and burned spots.
- 13. Inspect firewalls for cracks and obvious damage.
- 14. Check engine deck for debris, evidence of fuel and oil leaks.
- 15. Inspect engine mounts for cracks and security.
- Check inside of engine compartment door for burned spots and chafing.
- 17. Inspect airframe fuel filter for leakage and security.
- 18. Check fire warning elements for dents, kinks, chafing and canon plugs lockwire.
- 19. Check door latches for proper operation.
- 20. Check engine oil tank access panel for security and fasteners for proper operation.

## G-9. AFT FUSELAGE (RH)

- Inspect ECU inlet and exhaust for obstructions and screens for security and damage.
- 2. Check anti-collision light for damage and security.

### G-10. TAILBOOM (RH)

- Inspect skin for cracks, deformation and loose rivets.
- Inspect horizontal stabilizer for cracks, loose rivets, obvious damage and security; Drain holes for obstructions.

- Check tail rotor gearbox cowling, vertical fin, and tailskid for cracks, missing fasteners and security.
- 4. Check Anti-collision light for damage and security.
- 5. Check antenna for security.

#### G-11. TAIL ROTOR GEARBOX

- 1. Check chip detector plug for security and leakage.
- 2. Inspect access panel for security and cracks.
- 3. Check output shaft for cracks, play or seal leakage.

#### G-12. TAIL ROTOR AND BLADE

- 1. Inspect installation for security and obvious damage.
- 2. Check pitch horns for security and lockwire.
- 3. Check retaining nut for security.
- 4. Inspect crosshead for cracks or corrosion.
- 5. Check pitch links for freedom of movement without excessive play in bearings.
- 6. Check that the pitch link retaining bolts are installed with heads in direction of rotation and the cotter pins are installed.
- 7. Inspect static stop and rubber bumper for damage and security.
- 8. Ensure output shaft hub nut and washer are secured.
- 9. Check balance wheel and knurled nut for security and lockwire.
- 10. Check tail rotor hub trunnion for freedom of movement.
- 11. Place the tail rotor control in full right position and clean exposed portion of pitch change shaft with a clean cloth.
- 12. Check pitch change mechanism shaft for excessive play, scratches, nicks, corrosion and worn plating.

- 13. Place tail rotor control in full left position.
- 14. Inspect the tail rotor blades for the following:
  - a. Cracks, nicks, scratches and dents.
  - b. Bearings for indication of excessive wear and cracks.
  - c. Blade tip balance screws for sealing.
  - d. Tip block of blade for rivet damage and corrosion, condition of seal between mating surfaces and suspected voids.

### G-13. TAILBOOM (LH)

- 1. Check drain holes for obstructions.
- 2. Inspect skin for cracks, deformation or loose rivets.
- Inspect horizontal stabilizer for cracks, loose rivets, obvious damage and security: Drain holes for obstructions.

#### G-14. BAGGAGE COMPARTMENT

- 1. Check compartment door for security of hinges, cracks or obvious damage.
- 2. Check ICS amplifiers and wiring for security (TH-57C).
- 3. Ensure ground handling wheels, pry bar and equipment bag (if stowed in compartment is secured.
- 4. Check Compartment door latch for proper operation.
- 5. Ensure standby battery circuit breaker is closed.

#### G-15. FORWARD FUSELAGE (LH)

- Inspect skid and skid shoes for cracks or wear.
- 2. Inspect cross tubes for obvious damage, cracks, excessive deflection and security and check rubber bumpers for proper installation.
- 3. Check radio antenna for damage and security.
- 4. Inspect forward and aft doors for the

# following:

- a. Hinges for cracks, loose rivets, dents or obvious damage.
- b. Air scoop (when installed) for security.
- c. Door latch for proper operation.
- d. Emergency release handle for proper positioning and shear wire.

# G-16. AFT CABIN INTERIOR (LH)

- Inspect cabin deck for dents, cracks, loose or missing rivets and gear adrift.
- 2. Inspect seat belts and shoulder harness for the following:
  - a. Webbing for cuts, fraying and deterioration.
  - b. Attaching hardware for evidence of looseness.
  - c. Proper latching.

#### G-17. FORWARD CABIN INTERIOR (LH)

- 1. Inspect cabin door for dents, cracks, loose or missing rivets or debris.
- 2. Inspect seat belts and shoulder harness for the following:
  - a. Webbing for cuts, fraying and deterioration.
  - b. Attaching hardware for evidence of looseness.
  - c. Proper latching.
  - d. Inertial reel for positive locking when straps are accelerated.
- 3. Check tail rotor pedal adjustment knob for security and freedom of movement.
- 4. Check tail rotor pedals for freedom of movement.
- 5. Check collective stic for freedom of movement.
- 6. Check cyclic stick for freedom of movement.

#### G-18. TOP OF FUSELAGE

- 1. Check antenna for security.
- 2. Inspect fuselage skin for damage or cracks.
- 3. Check upper fairings for security, cracks and missing fasteners.
- 4. Inspect engine compressor inlet for obstruction or FOD.
- 5. Inspect engine oil cooler for obstructions.
- 6. Inspect exhaust stacks for chafing on cowling.

# G-19. MAIN ROTOR AND ROTATING CONTROLS

- Inspect swashplate, drive link, collective lever, collar set and mast for nicks, dents, cracks and scratches especially at mast static stop contact points.
- 2. Inspect control tubes and bellcranks for nicks, dents, cracks, security and proper hardware.
- 3. Inspect main rotor hub and yoke for nicks, dents, cracks and scratches.
- 4. Check flap restraint for freedom of movement, weights for security, bonding separation and springs for tension.
- 5. Inspect blades for dents and cracks and trim tabs for damage.
- 6. Check trunnion caps and blade grips for popped seals, grease leakage, damage and security.

#### G-20. ENGINE OIL COMPARTMENT

1. Check Door (LH) for security and latch for proper operation.

### G-21. ENGINE COMPARTMENT (LH)

- 1. Check compartment door for security of hinges.
- 2. Check exhaust stack clamp for security and lockwire.
- 3. Inspect combustion liner, air transfer tube and

- diffuser scroll for cracks, dents or burned spots.
- 4. Ensure diffuser vent standpipe is capped and lockwired.
- Check anti-ice motor for security, linkage for chafing and proper hardware, and valve for security.
- 6. Check ignitor lead for security and lockwire.
- 7. Inspect air conditioner compressor and belt for damage.
- 8. Check fuel nozzle for security (Lockwired if coupling nut is drilled).
- 9. Check fuel line for security (Lockwired if coupling nut is drilled).
- 10. Inspect tail rotor driveshaft (number one short shaft) for free fore and aft movement. (Buno's 161695 thru 161701 only)
- 11. Inspect tail rotor driveshaft for spread couplings and loose hardware.
- 12. Inspect fuel pump and filter for cracks, leaks and security.
- 13. Check NF governor for security and loose lines.
- 14. Check accumulator and double check valve for security, cracks and loose lines.
- 15. Check linear actuator and droop compensator linkage for security, lockwire and cotter pins.
- 16. Check ECU for security (if applicable).
- 17. Inspect engine mount supports for cracks and security.
- 18. Inspect standby generator and air scoop for cracks and security and wiring for tightness and chafing (if applicable).
- 19. Inspect inside of engine compartment door for burned spots and chafing.
- 20. Check door latches for proper operation.

# G-22. TRANSMISSION ACCESS PANEL (LH)

- 1. Check panel door hinges for security.
- 2. Inspect transmission case for cracks and leaks.
- 3. Check oil cooler for security and leaks.
- 4. Check oil filter for security and leaks.
- 5. Check hydraulic reservoir and transmission filler caps for security.
- 6. Inspect pylon mount links and mount brackets for security, cracks and worn bearings.
- 7. Check compartment deck for debris.
- 8. Check panel door latch for proper operation.

# G-23. HYDRAULIC ACCESS PANEL (LH)

- 1. Check panel door hinges for security.
- 2. Inspect compartment deck for debris.
- 3. Check antenna cable for security and correct routing. (TH-57C Only)
- 4. Inspect linear actuator tube for damage and correct mounting.
- 5. Inspect torque tube for evidence of twisting.
- 6. Inspect torque line for evidence of leakage.
- 7. Check panel door latch for proper operation.